

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Withdrawn) An isolated polypeptide selected from the group consisting of:
  - a) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:1, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2;
  - b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1 or SEQ ID NO:3 under stringent conditions;
  - c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 60% homologous to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, or SEQ ID NO:3; and
  - d) a polypeptide comprising an amino acid sequence which has at least 60% sequence identity to the amino acid sequence of SEQ ID NO:2, or SEQ ID NO:5.
9. (Withdrawn) The isolated polypeptide of claim 8 comprising the amino acid sequence of SEQ ID NO:2.
10. (Withdrawn) The polypeptide of claim 8 further comprising heterologous amino acid sequences.

11. (Withdrawn) An antibody which selectively binds to a polypeptide of claim 8.
12. (Withdrawn) A method for producing a polypeptide selected from the group consisting of:
  - a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2;
  - b) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2; and
  - c) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1 or SEQ ID NO:3 under stringent conditions;  
comprising culturing the host cell of claim 5 under conditions in which the nucleic acid molecule is expressed.
13. (Withdrawn) A method for detecting the presence of a polypeptide of claim 8 in a sample comprising:
  - a) contacting the sample with a compound which selectively binds to the polypeptide; and
  - b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 8 in the sample.
14. (Withdrawn) The method of claim 13, wherein the compound which binds to the polypeptide is an antibody.
15. (Withdrawn) A kit comprising a compound which selectively binds to a polypeptide of claim 8 and instructions for use.
16. (Withdrawn) A method for detecting the presence of a nucleic acid molecule in claim 1 in a sample comprising:
  - a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and

b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample to thereby detect the presence of a nucleic acid molecule of claim 1 in the sample.

17. (Withdrawn) The method of claim 16, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

18. (Canceled)

19. (Withdrawn) A method for identifying a compound which binds to a polypeptide of claim 8 comprising:

a) contacting the polypeptide, or a cell expressing the polypeptide with a test compound; and

b) determining whether the polypeptide binds to the test compound.

20. (Withdrawn) The method of claim 19, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

a) detection of binding by direct detection of test compound/polypeptide binding;

b) detection of binding using a competition binding assay; and

c) detection of binding using an assay for Coch 5B2 activity.

21. (Withdrawn) A method of modulating the activity of a polypeptide of claim 8 comprising contacting the polypeptide or a cell expressing the polypeptide with a compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

22. (Withdrawn) A method for identifying a compound which modulates the activity of a polypeptide of claim 8 comprising:

a) contacting a polypeptide of claim 8 with a test compound; and

b) determining the effect of the test compound on the activity of the polypeptide to thereby identify a compound which modulates the activity of the polypeptide.

23. (Withdrawn) A method of treating a subject having a disorder characterized by aberrant COCH5B2 protein activity or nucleic acid expression, comprising administering to the subject a COCH5B2 modulator such that the treatment of the subject occurs.

24. (Withdrawn) The method of claim 23, wherein the disorder is DFNA9.

25. (Withdrawn) A method of determining if a subject mammal is at risk for a disorder related to, a lesion in a COCH5B2 gene or the misexpression of a COCH5B2 gene, comprising detecting, in a tissue of the subject, the presence or absence of a mutation of a Cock-5B2 gene.

26. (Withdrawn) The method of claim 25, wherein the disorder is DFNA9.

27. (Withdrawn) A method of determining if a subject mammal is at risk for a disorder related to a COCH5B2 gene, comprising detecting, in a tissue of the subject, a non-wild type level of a COCH5B2 RNA or polypeptide.

28. (Withdrawn) The method of claim 27, wherein the disorder is DFNA9.

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

Please add the following new claims:

35. (New) A kit for diagnosing a subject at risk for a hearing disorder, comprising: one or more nucleic acid primers which hybridize under stringent conditions to a nucleic acid sequence comprising SEQ ID NO: 1 or complement thereof, wherein the primer amplifies all or a portion of exons 4 and 5 of SEQ ID NO:1; and

and instructions for a diagnosing hearing disorder by detecting a lesion which is an insertion, a deletion, or a substitution of one or more nucleotides encoding one or more of a proline at residue 51 of SEQ ID NO:2, a valine at residue 66 of SEQ ID NO:2, a glycine at residue 88 of SEQ ID NO:2, and a tryptophan at residue 117 of SEQ ID NO:2.

36. (New) The kit of claim 35, wherein the hearing disorder is DNFA9.

37. (New) The kit of claim 35, further comprising a nucleic acid probe which hybridizes under stringent conditions to the complement of SEQ ID NO:1 or naturally occurring variants thereof which comprises a lesion, wherein the probe hybridizes to a portion of the complement of SEQ ID NO:1 or the naturally occurring variant such that a lesion at one or more nucleotides encoding a proline at residue 51 of SEQ ID NO:2, a valine at residue 66 of SEQ ID NO:2, a glycine at residue 88 of SEQ ID NO:2, or a tryptophan at residue 117 of SEQ ID NO:2 is detected.

38. (New) The kit of claim 37, wherein the kit comprises more than one probe.

39. (New) The kit of claim 37, wherein the probe is a labeled probe.

40. (New) The kit of claim 38, wherein one or more of the probes is a labeled probe.

41. (New) The kit of claim 37, wherein the primer is at least 12 nucleotides in length.

42. (New) The kit of claim 37, wherein the primer comprises at least 12 consecutive nucleotides of SEQ ID NO:1.

43. (New) A kit for diagnosing a subject at risk for a hearing disorder, comprising: one or more nucleic acid probes which hybridize under stringent conditions to the complement of SEQ ID NO:1 or naturally occurring variants thereof which comprises a lesion, wherein the probe hybridizes to a portion of the complement of SEQ ID NO:1 or the naturally occurring variant such that a lesion at one or more nucleotides encoding: a proline at residue 51 of SEQ ID NO:2, a valine at residue 66 of SEQ ID NO:2, a glycine at residue 88 of SEQ ID NO:2, or a tryptophan at residue 117 of SEQ ID NO:2 is detected; and

and instructions for a diagnosing hearing disorder by amplifying all or a portion of SEQ ID NO:1 such that all or a portion of exon 4 and exon 5 is amplified and detecting a lesion which is an insertion, a deletion, or a substitution of one or more nucleotides encoding one or more of a proline at residue 51 of SEQ ID NO:2, a valine at residue 66 of SEQ ID NO:2, a glycine at residue 88 of SEQ ID NO:2, and a tryptophan at residue 117 of SEQ ID NO:2.

44. (New) The kit of claim 43, wherein the hearing disorder is DFNA9.

45. (New) The kit of claim 43, wherein the probe is a labeled probe.

46. (New) The kit of claim 43, wherein the kit comprises two or more probes and at least one of the probes is a labeled probe.

47. (New) The kit of claim 43, wherein the probe is at least 12 nucleotides in length.

48. (New) The kit of claim 43, wherein the probe comprises at least 12 consecutive nucleotides of SEQ ID NO:1.

49. (New) A nucleic acid primer for diagnosing a hearing disorder which hybridizes under stringent conditions to a nucleic acid sequence comprising SEQ ID NO: 1 or complement thereof, wherein the primer amplifies all or a portion of exons 4 and 5 of SEQ ID NO:1.

50. (New) The nucleic acid primer of claim 49, wherein the primer amplifies a portion of exon 4 that comprises nucleic acids encoding a proline at residue 51 of SEQ ID NO:2.

51. (New) The nucleic acid primer of claim 49, wherein the primer amplifies a portion of exon 4 that comprises nucleic acids encoding a valine at residue 66 of SEQ ID NO:2.

52. (New) The nucleic acid primer of claim 49, wherein the primer amplifies a portion of exon 5 that comprises nucleic acids encoding a glycine at residue 88 of SEQ ID NO:2.

53. (New) The nucleic acid primer of claim 49, wherein the primer amplifies a portion of exon 5 that comprises nucleic acids encoding a tryptophan at residue 117 of SEQ ID NO:2.

54. (New) The nucleic acid primer of claim 49, wherein the hearing disorder is DNFA9.

55. (New) The nucleic acid primer of claim 49, wherein the primer is at least 12 nucleotides in length.

56. (New) The nucleic acid primer of claim 49, wherein the primer comprises at least 12 consecutive nucleotides of SEQ ID NO:1.

57. (New) A nucleic acid probe for diagnosing a hearing disorder which hybridizes under stringent conditions to the complement of SEQ ID NO:1 or naturally occurring variants thereof comprising a lesion, wherein the probe hybridizes to a portion of the complement of SEQ ID NO:1 or the naturally occurring variant such that a lesion at one or more nucleotides encoding: a proline at residue 51 of SEQ ID NO:2, a valine at residue 66 of SEQ ID NO:2, a glycine at residue 88 of SEQ ID NO:2, or a tryptophan at residue 117 of SEQ ID NO:2 is detected.

58. (New) The nucleic acid probe of claim 57, wherein the probes hybridizes to a portion of the complement of SEQ ID NO:1 or the naturally occurring variant such that a lesion at one or more nucleic acids encoding a proline at residue 51 of SEQ ID NO:2 is detected.

59. (New) The nucleic acid probe of claim 57, wherein the probe is labeled.

60. (New) The nucleic acid probe of claim 57, wherein the hearing disorder is DFNA9.

61. (New) The nucleic acid probe of claim 58, wherein the probe detects a lesion at nucleotide 207 of SEQ ID NO:1.

62. (New) The nucleic acid probe of claim 57, wherein the probes hybridizes to a portion of the complement of SEQ ID NO:1 or the naturally occurring variant such that a lesion at one or more nucleic acids encoding a proline at residue 66 of SEQ ID NO:2 is detected.



63. (New) The nucleic acid probe of claim 62, wherein the probe detects a lesion at nucleotide 253 of SEQ ID NO:1.

64. (New) The nucleic acid probe of claim 57, wherein the probes hybridizes to a portion of the complement of SEQ ID NO:1 or the naturally occurring variant such that a lesion at one or more nucleic acids encoding a proline at residue 88 of SEQ ID NO:2 is detected.

65. (New) The nucleic acid probe of claim 64, wherein the probe detects a lesion at nucleotide 319 of SEQ ID NO:1.

66. (New) The nucleic acid probe of claim 57, wherein the probes hybridizes to a portion of the complement of SEQ ID NO:1 or the naturally occurring variant such that a lesion at one or more nucleic acids encoding a proline at residue 117 of SEQ ID NO:2 is detected.

67. (New) The nucleic acid probe of claim 66, wherein the probe detects a lesion at nucleotide 405 of SEQ ID NO:1.

68. (New) The nucleic acid probe of claim 57, wherein the probe is at least 12 nucleotides in length.

69. (New) The nucleic acid probe of claim 57, wherein the probe comprises at least 12 consecutive nucleotides of SEQ ID NO:1.